

CLAIMS

What is claimed is:

1. A system for sharing files among a plurality of computers on a wide-area network comprising a first networked computer and a second networked computer, wherein a user-selected file is reliably transferred from any one of the computers to any other one of the computers using User Datagram Protocol data packets.
2. A system for sharing files among a plurality of computers comprising a first computer and a second computer, wherein a user-selected file is transferred from the first computer to the second computer via a network using User Datagram Protocol data packets, and wherein the first computer is coupled to the network via a first address-translating device and the second computer is coupled to the network via a second address-translating device.
3. A network-based file-sharing system comprising:
 - a first host computer and a plurality of other host computers, each host computer having a processing unit and a storage; wherein the first host computer is programmed to generate from the plurality of other host computers a list of other host computers where a user-selected file is stored; wherein the first host computer is further programmed to select a second host computer from the list of other host computers based on an indication of a transfer time from the second host computer to the first host computer; and wherein the first host computer is further programmed to retrieve at least a portion of the particular file from the second host computer using User Datagram Protocol data packets.

4. The network-based file-sharing system of claim 3, wherein the first host computer is programmed to select from the list of other host computers a second host computer having the greatest responsiveness to the first host computer.

5. The network-based file-sharing system of claim 3, wherein the first host computer selects as the second host computer the host computer from the list of other host computers with the fastest transfer time from the second host computer to the first host computer.

6. A system for sharing files over a wide-area network, comprising:
a first plurality of hosts connected over the wide-area network; and
a first host having a processing unit, a storage, and a first set of machine instructions storable in the storage and executable by the processing unit for retrieving a respective portion of a user-selected file from each of a second plurality of hosts selected from the first plurality of hosts and coupled to the first host via a network.

7. The system of claim 6, wherein the first host resides on a first local-area network coupled to the wide-area network via a first address-translating device.

8. The system of claim 7, wherein the second host resides on a second local-area network coupled to the wide-area network via a second address-translating device.

9. The system of claim 8, wherein the first address-translating device is coupled to the second address-translating device only via the wide-area network.

10. The system of claim 8, wherein the first local-area network is different from the second local-area network.

11. The system of claim 6, wherein the respective portion of the user-selected file retrieved from each of the second plurality of hosts is retrieved using User Datagram Protocol data packets.

12. A system for sharing files over a wide-area network, comprising:
a plurality of hosts connected over the wide-area network;
a registry server independent of the hosts and coupled to the wide-area network for maintaining a registry containing for each of a plurality of files a message digest uniquely identifying the file and an indication of restriction status of the file; and
a first host having a processing unit, a storage, and a first set of machine instructions storable in the storage and executable by the processing unit for retrieving a user-selected file from at least one of the hosts coupled to the first host via the wide-area network;
wherein access to the file by the first host from the plurality of hosts is based on the indication in the registry of restriction status of the user-selected file.

13. The system of claim 12, wherein the user-selected file is retrieved by the first host using User Datagram Protocol data packets.

14. A network-based file-sharing system comprising:
- a first host computer and a plurality of other host computers, each host computer having a processing unit and a storage;
- the first host computer having generating means for generating from the plurality of other host computers a list of other host computers where a user-selected file is stored, selecting means for selecting a second host computer from the list of other host computers based on an indication of a transfer time from the second host computer to the first host computer, and retrieving means for retrieving at least a portion of the particular file from the second host computer using User Datagram Protocol data packets.
15. The network-based file-sharing system of claim 14, wherein the selecting means of the first host computer selects from the list of other host computers a second host computer having a fastest transfer time to the first host computer.
16. A method of sharing files among a plurality of computers on a wide-area network comprising a first networked computer and a second networked computer, the method comprising reliably transferring a user-selected file from any one of the computers to any other one of the computers using User Datagram Protocol data packets.
17. A method of sharing files among a plurality of computers including a first computer and a second computer, the method comprising transferring a user-selected file from the first computer to the second computer via a network using User Datagram Protocol data packets, wherein the first computer is coupled to the network via a first address-translating device and the second computer is coupled to the network via a second address-translating device.

18. A network-based file-sharing method comprising:

providing a first host computer and a plurality of other host computers, each host computer having a processing unit and a storage;

generating at the first host computer from among the plurality of other host computers a list of those of the other host computers where a user-selected file is stored;

selecting a second host computer from the list of other host computers based on an indication of a transfer time from the second host computer to the first host computer;

and

retrieving at least a portion of the particular file from the second host computer using User Datagram Protocol data packets.

19. The network-based file-sharing method of claim 18, further comprising selecting from the list of other host computers a second host computer having a fastest transfer time to the first host computer.

20. The network-based file-sharing system of claim 18, further comprising selecting as the second host computer the host computer from the list of other host computers with the fastest transfer time from the second host computer to the first host computer.

21. A method of sharing files over a wide-area network, comprising:
providing a first plurality of hosts connected over the wide-area network; and
providing a first host having a processing unit, a storage, and a first set of
machine instructions storable in the storage and executable by the processing unit for
retrieving a respective portion of a user-selected file from each of a second plurality of
hosts selected from the first plurality of hosts and coupled to the first host via a network.
22. The method of claim 21, wherein the first host resides on a first local-area
network coupled to the wide-area network via a first address-translating device.
23. The method of claim 22, wherein the second host resides on a second local-
area network coupled to the wide-area network via a second address-translating device.
24. The method of claim 23, wherein the first address-translating device is
coupled to the second address-translating device only via the wide-area network.
25. The method of claim 23, wherein the first local-area network is different from
the second local-area network.
26. The method of claim 21, further comprising using User Datagram Protocol to
retrieve the respective portion of the user-selected file from each of the second plurality
of hosts.

27. A method of sharing files over a wide-area network, comprising:

connecting a plurality of hosts over the wide-area network;

coupling a registry server independent of the hosts to the wide-area network for maintaining a registry containing, for each of a plurality of files, a message digest uniquely identifying the file and an indication of restriction status of the file;

providing a first host having a processing unit, a storage, and a first set of machine instructions storable in the storage and executable by the processing unit for retrieving a user-selected file from at least one of the hosts coupled to the first host via the wide-area network; and

wherein access to the file by the first host from the plurality of hosts is based on the indication in the registry of restriction status of the user-selected file.

28. The method of claim 27, further comprising retrieving the user-selected file to the first host using User Datagram Protocol data packets.

29. A computer-based system for sharing files over a computer network including a requesting host computer and a plurality of other host computers coupled to the first host computer via a network, the requesting host computer comprising:
- a processing unit;
 - a storage; and
 - a first set of machine instructions storable in the storage and executable by the processing unit for acquiring an indication of a user-selected file;
 - a second set of machine instructions storable in the storage and executable by the processing unit for generating at the requesting host computer from among the plurality of other host computers a list of those of the other host computers where the user-selected file is stored;
 - a third set of machine instructions storable in the storage and executable by the processing unit for selecting a source host computer from the list of other host computers based on an indication of a transfer time from the source host computer to the requesting host computer; and
 - a fourth set of machine instructions storable in the storage and executable by the processing unit for retrieving at least a portion of the particular file from the second host computer using User Datagram Protocol data packets.

30. The computer-based system of claim 29, further comprising a fifth set of machine instructions storable in the storage and executable by the processing unit for selecting from the list of other host computers a source host computer having a fastest transfer time to the requesting host computer.

31. The computer-based system of claim 29, further comprising a fifth set of machine instructions storable in the storage and executable by the processing unit for selecting as the source host computer the host computer from the list of other host computers with the fastest transfer time to the requesting host computer.